

Installation Guide

hp StorageWorks JREserver 1.0

Product Version: 1.0

First Edition (September 2004)

Part Number: AA-RVHQA-TE

This HP StorageWorks Java™ Runtime Environment server (JREserver) document describes how to install and remove the JREserver, how to setup a browsing computer, and provides StorageWorks graphical user interface (GUI) access troubleshooting information.

For the latest version of this Installation Guide and JREserver software, access one of the following product page web sites: <http://h18000.www1.hp.com/products/storage/software/bizcopyeva/index.html> or <http://h18006.www1.hp.com/products/storage/software/conaccesseva/index.html>.



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About this document

This section describes the content reflected in this document, including:

- [Installation Guide information](#), page 3
- [Intended audience](#), page 3

Installation Guide information

This Installation Guide covers the following major topics:

- [Setting up the Web browser](#), page 4
- [JREserver installation, use, and removal](#), page 7
- [StorageWorks GUI access troubleshooting](#), page 13

Intended audience

This document is intended for customers using HP StorageWorks Business Copy EVA/MA/EMA or HP StorageWorks Continuous Access EVA.

Setting up the Web browser

This section describes the recommended browser settings for Microsoft® Internet Explorer and Mozilla Web browsers. Topics include:

- [Verify cache settings](#)
- [Verify screen resolution](#)
- [Java Plug-in Control Panel setup](#)

Verify cache settings

Use the stored pages option for the browser to prevent caching, ensuring that only updated pages are viewed in the GUI. Follow the instructions for each browser type.

For Internet Explorer Browsers

1. From the Desktop or **Start** menu, start a browser.
2. Click **Tools > Internet Options**.
3. From the **General** tab, under **Temporary Internet files**, click **Settings**.
4. Under **Check for newer versions of stored pages**, click **Every visit to the page**.
5. Click **OK**.
6. Click **OK**.

For Mozilla Browsers

1. Click **Edit > Preferences**.
2. In the navigation pane, click **Advanced > Cache**.
3. On the Set Cache Options page, under **Compare the page in the cache to the page on the network**, click **Every time I view the page**.
4. Click **OK**.
5. Click **OK**.

Verify screen resolution

For GUI menus to be fully viewable and accessible for input, HP recommends the following settings:

- A minimum display resolution of 1024 x 768 pixels, with 256 or more colors
- A full-screen browser display

Java Plug-in Control Panel setup

JREs are configured through the Java Plug-in Control Panel (see [Figure 1](#)). This panel contains tabs that are OS dependent:

- Microsoft Windows® provides eight tabs: **Basic**, **Advanced**, **Browser**, **Proxies**, **Cache**, **Certificates**, **Update**, and **About**.
- HP-UX, Linux, and Solaris provide six tabs: **Basic**, **Advanced**, **Proxies**, **Cache**, **Certificates**, and **About**.

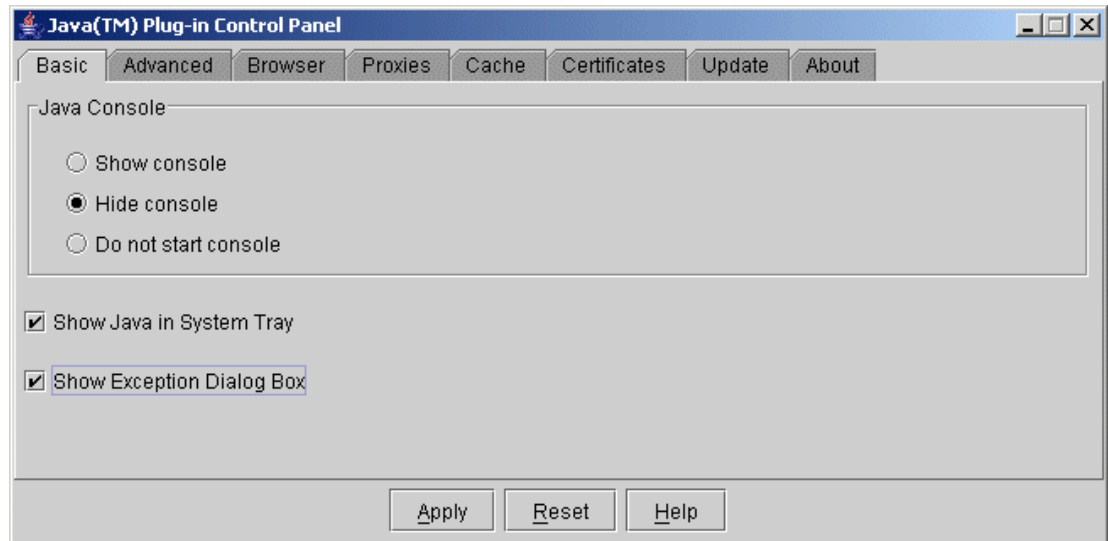


Figure 1: Java Plug-in Control Panel (Windows example)

To access the JRE control panel from:

- Windows, click **Start > Settings > Control Panel** and then double-click **Java Plug-in**.
- HP-UX, Linux, and Solaris:
 - a. Open a browser.
 - b. Click **File > Open**.
 - c. Browse to where the JRE is installed:
 - HP-UX and Solaris: typically in `/usr/j2se/jre`
 - Linux: `/usr/java/j2re1.4.2_02/bin/ControlPanel`
 - d. Double-click `ControlPanel.html`.

For StorageWorks applications, key configuration tabs are:

- Advanced
- Cache
- Update (Windows only)

Advanced tab

Use the **Advanced** tab for troubleshooting. If multiple JREs are currently installed or different JREs have been installed and uninstalled on a computer, specifying the desired JRE might resolve JRE conflicts and collisions.

Cache tab

JRE Cache is “sticky cache,” which means that the disk cache is created and controlled by the Java Plug-in and the browser cannot overwrite this disk cache. Since caching prevents the applet from downloading off the server each time information is referenced, JRE caching is detrimental to StorageWorks applications because storage data might change after caching the applet.

To clear and disable JRE caching, complete the following procedure from the **Cache** tab:

1. If necessary, select **Enable Caching**.

2. Click **Clear**.
A confirmation pop-up window displays.
3. Click **OK**.
4. Deselect **Enable Cache**.

Update tab (Windows only)

By default the **Update** tab is set to **Check for Updates Automatically**. In a properly configured and functioning system, an automatic update can be an unnecessary intrusion. HP recommends disabling the automatic-update option by deselecting **Check for Updates Automatically**.

Note: For additional Java Plug-in Control Panel information beyond this brief overview, visit http://java.sun.com/j2se/1.4/pdf/developer_guide.pdf.

JREserver installation, use, and removal

Installing JREserver provides the minimum JREs for HP products on the Storage Management Appliance (SMA) or Storage Management Server (SMS). This installation requires either the JREserver CD or Web download file from the Business Copy EVA/MA/EMA or Continuous Access EVA product page.

Note: The JREs provided by the JREserver utility were tested with Business Copy EVA and Continuous Access EVA management software. HP supports these JREs and any patches distributed by the JRE developer to address issues such as security vulnerabilities. HP recommends that customers contact the JRE manufacturer to determine if any patches are required.

Note: Performing “local browsing” to the GUI can result in a JRE conflict and a possible loss of functionality. This includes running the platform via a Terminal Services session.

Note: HP recommends installing the JREserver package immediately before or after the StorageWorks application installation.

After Business Copy EVA and Continuous Access EVA are installed, these applications are compatible with, and can be accessed from, the following applications:

- HP Systems Insight Manager
- HP System Management Homepage

Topics in this section include:

- [JREserver installation](#), page 7
- [Using JREserver](#), page 9
- [JREserver removal](#), page 11

JREserver installation

Complete the following procedure to install JREserver on the same host as the HP StorageWorks application:

1. Navigate to the `setup.exe` file.
2. Double-click the `setup.exe` file to begin JREserver installation.



Figure 2: Installation introduction

Note: Click **Cancel** at any time during the installation to exit the installation.

3. Click **Next**.

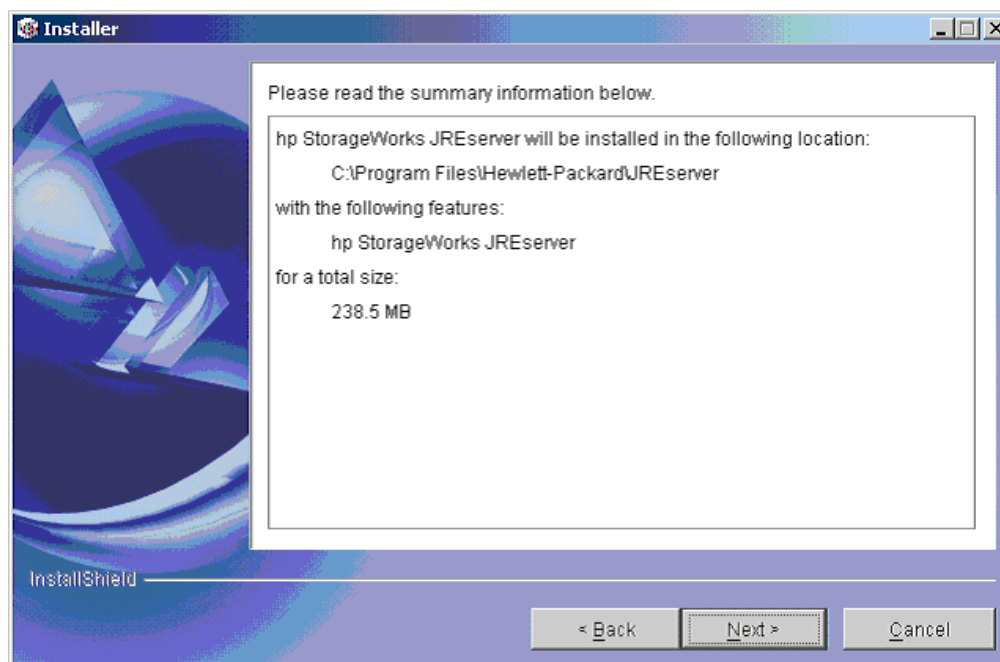


Figure 3: Installation summary

4. Review the summary information.

5. Click **Next**.

An installation window briefly displays as JREserver installs.

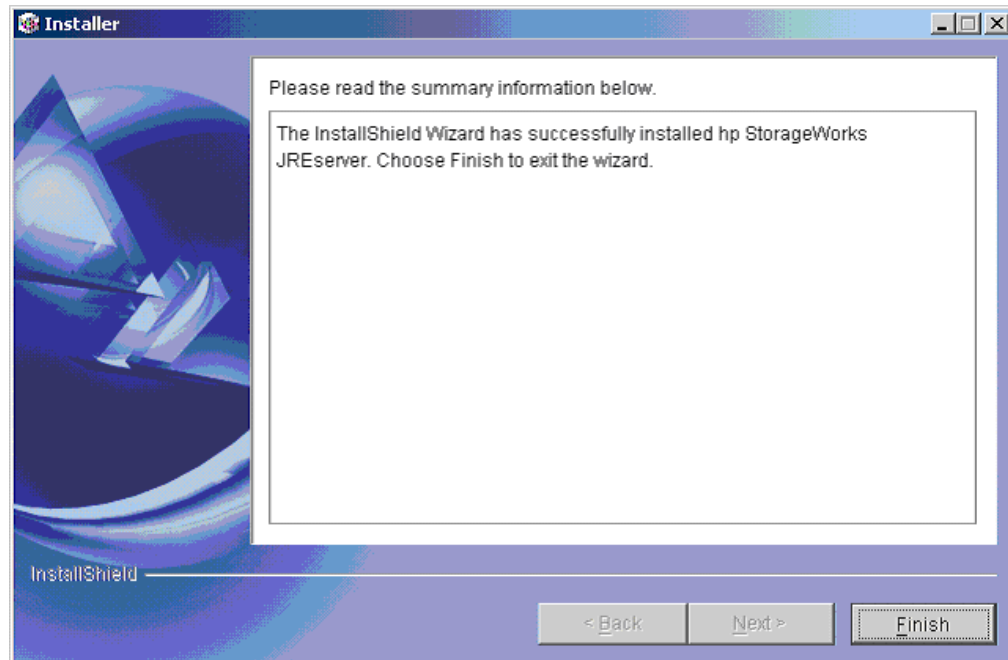


Figure 4: Installation complete

6. Click **Finish** to complete the installation.

Using JREserver

After installing JREserver, complete the following procedure to install a JRE on the browsing computer:

1. Browse to the SMA or SMS that contains the JREserver using one of the following URL formats:

https://<MyComputer or IP_address>:2381/jre_server/

https://<MyComputer or IP_address>:2381/jre_server/html/jremethods.html

2. Log in.



Figure 5: Supported JRE not found

3. Click **JREserver Installation**.



Figure 6: JRE installation page

4. Download and install the JRE as directed.

Note: Before beginning the JRE installation, close all open instances of all browsers to ensure that the JRE installs properly. In some cases, the JRE installation might require rebooting the browsing computer before the JRE functions properly.

JREserver removal

Complete the following procedure to uninstall JREserver:

1. Click **Start > Settings > Control Panel**.
2. Double-click **Add/Remove Programs**.
3. Select **hp StorageWorks JREserver** from the program list.
4. Click **Change/Remove** to begin the removal.

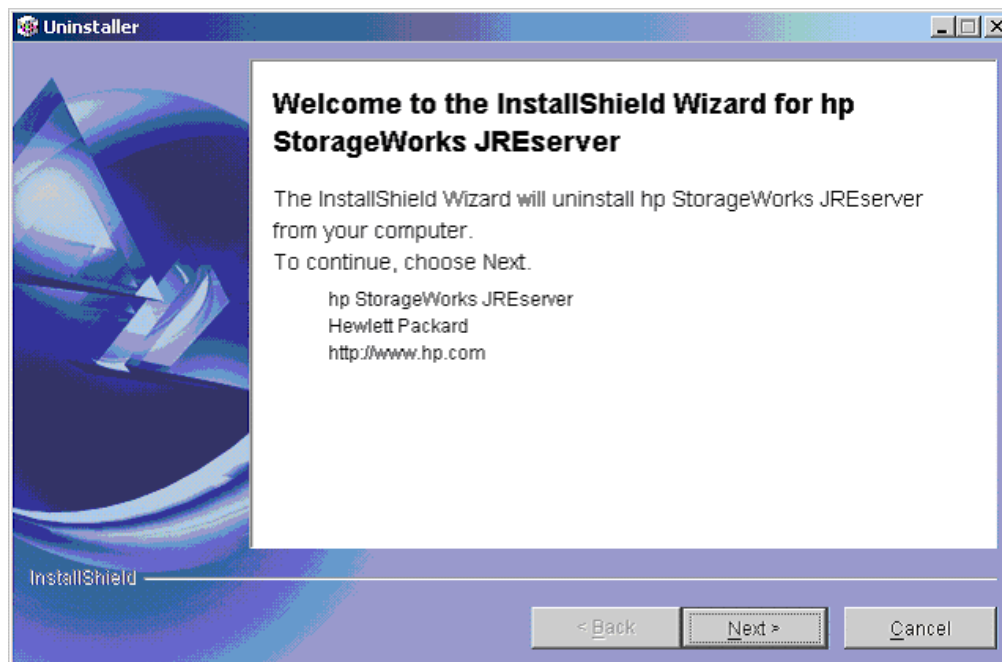


Figure 7: Removal introduction

5. Click **Next**.

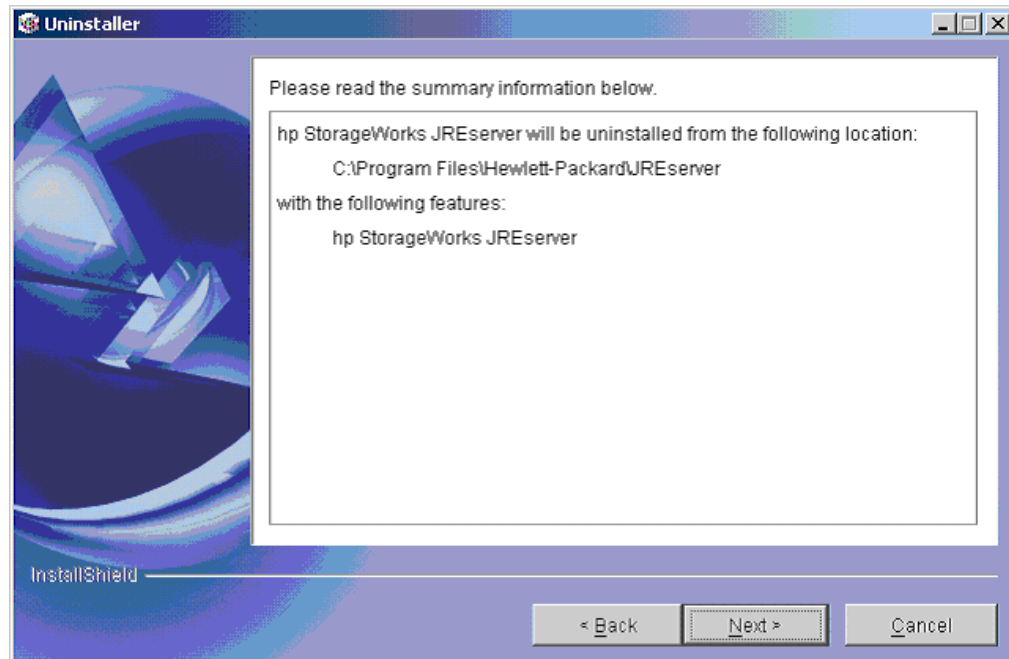


Figure 8: Removal summary

6. Review the summary information before continuing.
7. Click **Uninstall**.

A window briefly displays as JREserver uninstalls. [Figure 9](#) displays following a successful removal.

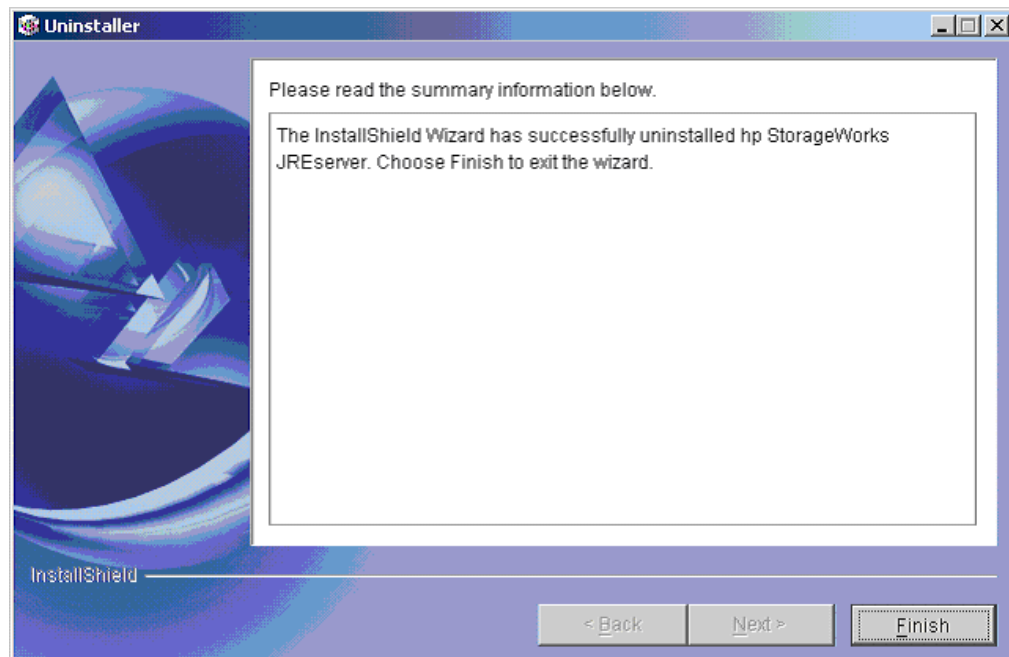


Figure 9: Removal complete

8. Click **Finish** to complete the removal.

StorageWorks GUI access troubleshooting

This section describes problems related to accessing the GUI. Topics include:

- [Selecting JREserver Installation provides HTTP Status 404, Not Found](#), page 13
- [GUI does not display when using Mozilla 1.6](#), page 13
- [Error messages that prevent GUI access](#), page 13
- [Experiencing Java error messages such as “JRE Collision”](#), page 14
- [Web browser does not display the complete GUI during startup](#), page 14
- [General problems](#), page 15
- [Inability to browse to the SMA/SMS](#), page 16
- [Windows 2000 and Windows Server 2003 access problems](#), page 17

Selecting JREserver Installation provides HTTP Status 404, Not Found

Description: When browsing to the StorageWorks application GUI and selecting **JREserver Installation**, an HTTP Status 404, Not Found page displays with Request: `/jre_server/html/jreDownload2.html`.

Resolution: Install JREserver on the SMA or SMS being browsed to using “[JREserver installation](#)” on page 7.

GUI does not display when using Mozilla 1.6

Description: Typically, this error is caused by installing multiple versions of Mozilla on the browsing computer (for example, 1.4 and 1.6). The Mozilla.org web site (<http://www.mozilla.org>) cautions users that only one installation of Mozilla can exist on a given computer.

Resolution: Prior to upgrading or installing a different version of Mozilla, uninstall the existing installation first.

Error messages that prevent GUI access

Applies to: Any of the following error messages:

- HTTP Status 404, Not Found
- The page cannot be displayed
- Error: Access Is Denied
- 11001 - Host not found

Description: These error messages can display when trying to access a page on the intranet and can occur if either of the following conditions exist:

- The proxy settings are set to use the proxy server for all requests and the page is requesting authorization.
- The Web page is password protected.

Resolution: To resolve this issue, configure Internet Explorer to either use an automatic configuration script or a proxy server for the Local Area Network (LAN) Settings as follows:

1. Click **Start > Settings > Control Panel**.
2. Double-click **Internet Options**.
3. Click the **Connections** tab.
4. Click **LAN Settings**.

5. Choose *one* of the following proxy configurations:
 - **Use automatic configuration script**—Click the checkbox.
 - Using a manual proxy server—Complete the following steps:
 - a. Click **Use a proxy server for your LAN (These settings will not apply to dial-up or VPN connections)**.
 - b. Click the **Bypass proxy server for local (Intranet) addresses** check box.
 - c. Click **Advanced**.
 - d. Under **Exceptions, Do not use proxy server for addresses beginning with**, enter any specific intranet addresses, especially entire domains and subdomains, as desired.
6. Click **OK** to accept Proxy Settings changes.
7. Click **OK** to accept the LAN Settings changes.
8. Click **OK** to close the Internet Properties box.

Note: If using manual configuration of the LAN Connections in Internet Explorer, the **Bypass proxy server for local (Intranet) addresses** checkbox must be selected.

For further information, refer to Microsoft Knowledge Base Article #KB166401.

Experiencing Java error messages such as “JRE Collision”

Description: When a supported JRE is known to have been installed successfully, a JRE conflict or collision might still occur by the display of an error message.

Resolution: See “[Java Plug-in Control Panel setup](#)” on page 4 to verify the JRE configuration.

Web browser does not display the complete GUI during startup

Description: This known issue is not an error, but rather an explanation of a possible condition. Following the initial startup and display, the applet-initialization process is launched and the message Loading Java Applet... displays in the bottom left-hand corner of the browser window status bar. At the start of the download process, the browser presents a Secure Socket Layer (SSL) query pop-up window that requests your approval to accept the security certificate. This security certificate allows you to verify the authenticity of the visiting site and to communicate with the site securely. The download cannot continue until a response is given. Occasionally, this pop-up window becomes hidden behind the browser window, giving the impression that a problem exists with displaying the GUI.

Resolution: Perform one of the following:

- Hold down the **ALT** key and press **TAB** as necessary to display the query pop-up window. Look for the application with a steaming cup of coffee icon and titled “Java Plug In Security Warning.” With this pop-up security window displayed, answer the query question.
- Minimize all windows to view the pop-up security window and answer the query question.

General problems

Description: Problems with SMA/SMS account login page and Java errors.

Types of problems include:

- The area for entering the Username and Password is missing from the SMA/SMS account login page, preventing login to the SMA/SMS.
- Java, Java Applet, JavaScript, or ActiveX errors are displayed, preventing display of the GUI.
- Only the GUI top header is displayed, and no information displays in the Web pages.
- Error message:

The Java2 Plug-In necessary to run this applet has not been installed

- Error message:

The Java Runtime Environment cannot be loaded

Resolution: Check the following:

- Ensure that a supported browser and JRE are being used.
If necessary, download and install the minimum supported JRE from JREserver.
- Ensure that the Java Plug-in Control Panel is set up properly. See “[Java Plug-in Control Panel setup](#)” on page 4.
- If installing a new browser, an updated browser version, new JRE, or an updated JRE version, always:

- a. Close all open browser windows.
- b. Allow the browser or JRE installation to complete.
- c. Open a new browser session and browse to the SMA/SMS.

If problems persist (such as lack of a display in the lower portion of the GUI), complete the following:

- Clear the browser and JRE cache as described in [Table 1](#) and refresh the browser to see if the problem clears; otherwise
- Verify that the browser is set up properly (see “[Setting up the Web browser](#)” on page 4).
- Reboot the browsing computer and browse to the SMA/SMS again.

Table 1: Clearing the browser and JRE cache

To clear cache for...	Use this procedure...
Internet Explorer	<ol style="list-style-type: none"> 1. Click Tools > Internet Options. 2. Click the General tab. 3. Under Temporary Internet files, click Delete Files. Clicking Delete all offline content is not necessary. 4. Click Settings. 5. Click Every visit to the page. 6. Click OK. 7. Click OK.

Table 1: Clearing the browser and JRE cache (Continued)

To clear cache for...	Use this procedure...
Mozilla	<ol style="list-style-type: none"> 1. Click Edit > Preferences. 2. In the Navigation pane, click Advanced > Cache. 3. Set cache to "0" MB. 4. Click Clear Cache. 5. Click OK. 6. Click Clear Disk Cache. 7. Click OK.
JRE plug-in	<ol style="list-style-type: none"> 1. Open the Java Plug-in Control Panel. 2. Click the Cache tab. 3. If necessary, select Enable Caching. 4. Click Clear or Clear JAR Cache. 5. Deselect Enable Caching. 6. Click Apply. 7. Close the Java Plug-in Control Panel.

Inability to browse to the SMA/SMS

Description: Inability to browse to the SMA/SMS account login page.

The problem might be that the Domain Name Server (DNS) is not recognizing the SMA/SMS.

Resolution: To correct this problem:

1. Insert an "A" record (host record) and a pointer record (*PTR record* or a *reverse lookup record*) on the DNS server for the SMA/SMS.
2. For Dynamic Host Configuration Protocol (DHCP) environments, set a permanent lease and reservation for the SMA/SMS.
3. Ensure that the DNS is configured for DHCP Auto Registration.

Alternate solution An alternative solution is to modify the "Hosts" file on each browsing computer and the SMA/SMS.

Note: The SMA/SMS and host agent computers must share information to communicate with each other.

1. Locate the "Hosts" file, use:
 - Windows: %systemroot%\System32\Drivers\Etc
 - HP-UX and Solaris: /etc
 - Linux: /etc/hosts
2. Using a text editor, open the "Hosts" file and add a line to the end of the file that reflects the domain name format.

For example:

```
11.22.33.44 MyComputer.roadrunner.acme.net
11.22.33.44 MyComputer
```

3. Save the file and exit the editor.

Windows 2000 and Windows Server 2003 access problems

Problem: **Cannot access BC, even after uninstalling previous JRE versions.**

Multiple installations of a JRE on a browsing computer might inhibit browsing to the GUI, despite uninstalling previous versions.

Resolution: To correct this problem:

1. Click **Start > Settings > Control Panel**.
2. Double-click the Java plug-in icon from the Control Panel.
3. On the Java Plug-in Control Panel, click the **Advanced** tab.
4. Instead of “Use Java Plug-In Default,” click the correct plug-in and installation directory from the list.

Problem: **Cannot access the GUI when using high security Internet Explorer browsers.**

Resolution: To correct this problem:

1. Remove all existing JRE or Java Virtual Machine (JVM) installations that are listed in the Add/Remove Programs window.
2. If Netscape has been previously installed, uninstall the Netscape version.
Netscape automatically installs a JRE that might interfere with Internet Explorer on Windows 2000 and Windows Server 2003 systems.
3. Because uninstalling Netscape does not uninstall the JRE, manually delete JRE subdirectories under the Java or JavaSoft directories:

```
C:\Program Files\java  
C:\Program Files\javasoft
```

4. Exit Internet Explorer and close all browser windows.
5. Install a supported JRE.
See “[JREserver installation](#)” on page 7.
6. Reopen Internet Explorer and click **Tools > Internet Options**.
7. On the **Privacy** tab, ensure that the slider is set no higher than Medium-High.
If the slider is missing, restore the slider by clicking **Default Level**. A minimum level of “cookie” acceptance is required by the SMA/SMS.
8. On the **Security** tab, ensure that the slider for the Internet Web content zone is set no higher than Medium.
If the slider is missing, restore the slider by clicking **Default Level**.